DEMAND ANALYSIS WORKING GROUP (DAWG)
Energy Savings Pup

Notes

CPUC Energy Efficiency Potential Study -- CPUC 2018 & Beyond EE Potential & Goals Study – Low Income (LI) Program Savings

April 28, 2017 @ 10am-11:30am PT

Webinar only

Meeting Page Link: http://demandanalysisworkinggroup.org/event/2017-04-28-cpuc-energy-efficiency-potential-2018-beyond-low-income/

DRAFT AGENDA

The CPUC Potential and Goals (PG) study is currently updating its estimate of savings from Residential Low Income (LI) utility programs. Commission staff and Navigant will present at this webinar an overview of LI calculation methodology, findings from review of literature and research, and 2018 PG study draft inputs and preliminary results for LI. This webinar will not cover topics beyond Residential Low Income. An informal comment period will follow the workshop.

Information about this meeting is also available at: https://pda.energydataweb.com .

- Scope of Activity
  - -Update market potential for low income (LI) segment using same general approach as previous CPUC potential and goals (PG) models
  - -Review new literature and research to define new inputs accounting for policy changes where data allows
  - -Forecast market achievable potential (no forecast of technical or economic potential)
  - -Identify areas of future research
- Same general equation as 2015 model:
  - Market Savings Potential = Annual Households (HH) Treated x Unit Energy Savings (UES)
    - -HH Treated
      - Number of customers forecast to be treated
      - New for 2018 model
        - Includes separate HH forecast for first time participants and retreatments where data is provided by the IOUs
        - Includes separate HH forecast for single family (SF) and multi-family (MF)
    - -UES
      - UES value is total HH savings (kW, kWh, Therms)
      - New for 2018 model
        - Includes separate UES value for first time participants and retreatments where data is provided by the IOUs
        - Includes separate UES values for SF and MF households where data is provided by the IOUs

- Program Cost = Forecast Households Treated x Average Cost per HH Treated
  - -Average Cost per HH Treated = Total Number of Households Treated (for the period reviewed) / Total Expenses (excluding accruals)
  - -Energy Efficiency Potential = annual HH treated x unit energy savings (UES) for each unit

Discussion

Utilities provided a variety of data to Navigant. However, based on discussion during this meeting, both IOUs and Navigant gained a better understanding of the data that were available and what would be most useful in the analyses. As a key follow up, Navigant will work with the IOUs to more fully explore the available data, including sources and level of granularity. In particular, there was some confusion about whether or not mobile home data were provided and/or if they were blended with other types.

- Discussion: Navigant/CPUC and the IOUs will work together to straighten this out and differentiate single family, multi-family and mobile homes. This will lead to changes in the next version of this analysis.

“Goback” (“re-treatment”) rules were changed by CPUC D.16-11-012, allowing more “re-treatments of households that have already received for one or more services. (Each utility is implementing retreatments a little bit differently.) This is one driver of the reasons the draft results for the 2018 & Beyond study (the current study) are higher than the 2015 energy efficiency potential study.

The IOUS target untreated households, but they do offer “re-treatment.”

Therefore, re-treatments are one of the reasons the 2018 [draft] energy efficiency potential estimates are higher than the 2015 study.

Three sources of information (2016 CPUC/IOU Low Income Needs Assessment (LINA), IOU internal projections, and an NRDC study) were used to estimate the number of housholds by single/multi-family and income level.

- Household Treatment Forecasts
  - 2018 PG is first model to include separate forecasts of SF and MF potential
    - For the period 2017 through 2020
    - -71% increase from 2015 PG in forecast HH treated
    - -Retreatments account for 39% of all HH treated
    - -MF first time and retreatments account for 26% of HH treatment forecast
  - Only SCG forecast retreatments to 2030. All other IOU end forecast at 2020

Discussion

- The cycle of LI program reporting is such that later in the year reports are more accurate (earlier in the year includes more projections that are trued up over the course of the year).
- Navigant will aim to use end of year 2016 data, if it is more accurate. But also note that the energy efficiency potential study is updated every two years. It’s not always possible to include the very latest/greatest data in a given cycle, but better data will be picked up in the next cycle.

For gas measures, the measures tend to be installed in the house, so they have long EULs – i.e., they stay with the house. For electric measures, there is a mix of measures (some with longer and some with shorter EULs). For example the issues are: tenant mobility (renters move more every three years, and even owners may move) and since the electric measures are not always tied to the home, some of the measures (e.g., a refrigerator) may (or may not) move with the original program recipient. Also – and this applies to both electric and gas measures – the measures installed to the building (e.g., building shell/insulation/etc.) may stay, but the new occupants might not be low income.

So there are a variety of complications in estimating the impacts of/potential for energy efficiency in the LI segment).

Discussion

- Navigant/CPUC: will look at the latest MF study from CADMUS – IOUs will send the study to Navigant. Navigant will use the SF/MF/MH split the IOUs provide from the CADMUS study rather than the information from the LINA study that is cited on slide 12.

- Navigant will revise slide 15 tables and submit to IOUs for input to ensure that the most current data has been used.

Discussion

- Can differences in kWh and therms be provided, broken out by "initial treatment" vs. "retreatment"?
- CPUC/Navigant will take that under advisement but will need to consider whether that is practicable for this year's study.
- Really, the terminology for the LI segment isn't "market potential" per se as in the rest of the energy efficiency potential study since the underlying concept is not built on customer/market uptake. Rather, the "market potential" calculation is more like "planned" potential since the amount of programs/savings is primarily subject to policies planed by the IOUs.

Possible future scope

- Increased rigor/forecast of the multi-family segment (this may be improved based on the LINA study vs. underlying market)
- Consider impact of high pop growth in areas defined by SB 535

Summary:

- CPUC/Navigant will work with IOUs to clarify data availab/data request as described in several sections above.
- Note always that the study will be updated in two years. For this study, the best available data will be used. We acknowledge that certain issues/topics/analyses will always fall short and in the next cycle there will be opportunities to update these data and analyses.

- PUC staff welcome additional informal, written comments.
    - Due date: May 10, 2016
    - E-mail to all three:
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